Changing Tides
noaa fisheries northeast region
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NATIONAL MARINE FISHERIES SERVICE • NORTHEAST REGION • ONE BLACKBURN DRIVE, GLOUCESTER, MA 01930 • PHONE: 978-281-9300 • HTTP://WWW.NERO.NOAA.GOV/NERO/

Fishery Allowed to Proceed on Georges Bank

Atlantic Herring Fishery

At the request of the New England Fishery Management Council, NOAA Fisheries Service Northeast Region coordinated the development of emergency regulations to authorize the Atlantic herring fishery to proceed on Georges Bank while retaining small amounts of haddock. Without the action, these vessels would likely not fish on Georges Bank this year, risking about $3 million in revenues and bait supply for the region's top-valued fishery, American lobster.

The emergency action is in place for 6 months and can be extended for an additional 6 months. It changes a long-standing provision in the Northeast Region's groundfish rules that prohibited Atlantic herring vessels, which use mid-water trawl and purse seine gear, from retaining any groundfish such as haddock.

Last year, haddock bycatch was detected in the Atlantic herring landings data. At the same time, record numbers of young haddock, born in 2003, were reportedly rising into mid-water depths where herring nets could inadvertently catch them. Usually, groundfish like haddock stay near the ocean bottom, below herring schools.

The Georges Bank haddock stock dipped to record low levels in the 1990s, but has seen rapid rebuilding in the past few years, owing to both reduced fishing rates and good reproductive success in the stock.

The new regulations apply to vessels permitted to land more than 500 metric tons of Atlantic herring, regardless of where they fish. Haddock bycatch will be reported for each trip, culled from the landings, and set aside for fishery enforcement agents to inspect. There will be no haddock size limit, and no purchase or sale for human consumption. There is also an overall haddock bycatch limit, equal to 1 percent of the Georges Bank haddock total allowable catch. If reported haddock bycatch in the fishery exceeds that limit, the Georges Bank herring fishery will close, and the zero haddock possession limit for herring vessels will be reinstated.

Petition to List as Threatened or Endangered

Eastern Oysters

On January 11, 2005, NOAA Fisheries Service received a petition from Ecosystem Initiatives Advisory Services to list eastern oyster (*Crassostrea virginica*) as threatened or endangered under the Endangered Species Act (ESA). The petition primarily presents information regarding threats to the Chesapeake Bay stock of oysters; however, there is information on the status of and threats to the species throughout its range.

Oysters in the Chesapeake Bay have been reduced to less than 1 percent of their former abundance. Coastwide, declines are evident and are the result of disease (e.g., MSX and Dermo), overharvest, and habitat loss/degradation. In high salinity areas of both the Delaware Bay and Chesapeake Bay, *Haplosporidium nelsoni* (MSX) was responsible for the mortality of close to 100 percent of the adult standing stock biomass

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The History of

Hampton Roads, Virginia

The Port of Hampton Roads, Virginia, is located within the boundaries of the Chesapeake Bay along the Mid-Atlantic Coast, which is the largest estuary in North America and which provides an abundance of seafood. Hampton Roads thrives both on this abundance as well as the safe navigation that the Bay offers as a deep water port for larger vessels.

The history of this port dates back to the time when settlers landed in Hampton Roads and established the first settlement at Jamestown. These settlers quickly learned, with help from the Powathan Indians, to harvest the bounties of the Bay to sustain their way of life.

The Port of Hampton Roads has grown over the years and is now a major international shipping facility. The harbor includes the Norfolk Naval Base, one of the largest in the world, and Northrop Grumman Shipyard, the only builder of Aircraft carriers in the Country.

Recreational fisheries contribute millions to the economy each year

The port has so many other activities it would be easy to over-look the commercial and recreational fisheries. The fisheries have grown and evolved just as the port has continued to be vital to the economy in the area.

Dockside value and landings of seafood in Virginia ranked third in the nation behind Alaska and Louisiana, respectively. There were 750 million pounds of seafood landed across Virginia's docks in 2003, with Hampton Roads contributing a large portion of these landings. Due to the Chesapeake Bay estuary and the rich ocean waters just offshore, Virginia is listed as one of the largest producers of seafood on the East Coast.

Important commercial and recreational species to the Port of Hampton Roads include, but are not limited to, scallops, summer flounder, menhaden, blue crabs, striped bass, black sea bass, croakers, oysters and clams. Commercial landings attract the most attention when talking about landings and values, however, robust recreational fishing opportunities abound for many species as well.

Recreational fisheries contribute millions into the economy of Hampton Roads each year. Many believe the Chesapeake Bay and the surrounding coastal waters provide the best striped bass fishing opportunities anywhere.

The surrounding community continues to recognize the importance of fisheries to the local economies. Many events are held each year to celebrate the abundance of seafood. County festivals such as the Poquoson Seafood Festival and the Urbanna Oyster Festival remind locals and visitors of the importance of this area's seafood. The vibrant fisheries and work ethic of the Chesapeake Bay watermen have always and will continue to shape and define the character that is Hampton Roads, Virginia.

Highly Migratory Species

New Permit & Reporting Requirements

Effective July 1, 2005, all dealers importing, exporting, or re-exporting bluefin tuna, swordfish, southern bluefin tuna and frozen bigeye tuna must hold a Highly Migratory Species International Trade Permit (HMS ITP) and follow the required reporting procedures. The HMS ITP is required to assist the U.S. in implementing international trade tracking programs that address illegal, unreported, and unregulated fishing activities, improve conservation and management measures, and enhance the scientific evaluation of these stocks.

Under international agreements and domestic law, the U.S. implements recommendations of the International Commission for the Conservation of Atlantic Tunas (ICCAT) and Inter-American Tropical Tuna Commission (IATTC). Both IATTC and ICCAT have implemented a statistical document program for frozen bigeye tuna. In addition, ICCAT has implemented bluefin tuna and swordfish statistical document programs.

Dealers currently holding the Atlantic Tunas Dealer Permit, Pacific Bluefin Tuna Dealer Permit, and/or Swordfish Dealer Permit must now obtain the HMS ITP in order to legally import or export the covered species listed above. After July 1, 2005, the Atlantic Tunas Dealer Permit and Swordfish Dealer Permit will only cover domestic purchases of these species (from vessels). The Pacific Bluefin Tuna Dealer Permit will no longer be issued.

Dealers may obtain an HMS ITP, by submitting a completed application to the SER Permitting Office located in St. Petersburg, FL.

Permit applications and further information may be obtained from the website: www.nmfs.noaa.gov/sfa/hms/ under the link "International Trade;" or by calling 727-824-5326. Specific information regarding reporting requirements will be distributed to new permit holders and posted on the website.

Framework Adjustment to Multispecies Plan

Groundfish Framework 40B

On June 1, 2005, NOAA Fisheries Service Northeast Region implemented Framework 40B to the Northeast Multispecies Fishery Management Plan (FMP). The action contained specific measures to improve the effectiveness of effort control, create an additional SAP in the Gulf of Maine, and assess groundfish bycatch in the herring fishery.

Last year, due to the number of measures proposed for inclusion in Framework 40, the New England Fishery Management Council (Council) split the framework into two separate actions, Frameworks 40A and 40B.

The first framework, Framework 40A, included two new special access programs and another program designed to facilitate the use of Regular B days-at-sea (DAS).

The measures contained in Framework 40B revise the Closed Area II Yellowtail Flounder SAP, and revise the criteria to allow all vessels to join and all cod landings to apply to the Georges Bank Cod Hook Sector.

In addition, the framework eliminates the tonnage criterion and reduces the "conservation tax" to 20 percent DAS exchanged under the DAS Transfer Program. It also removes net limit for Trip gillnet vessels.

The framework also establishes a one-time permit baseline downgrade for vessels leasing DAS and a DAS credit for vessels standing by an entangled whale.

In order to facilitate the monitoring of groundfish bycatch in the herring fishery, observer and landing notification requirements for herring vessels are established.

The action provides greater flexibility for Sector and Trip gillnet vessels, increases incentives to participate in the DAS Leasing and Transfer Programs, increases incentives to report entangled whales, and increases the capacity of NOAA Fisheries Service to monitor and regulate groundfish bycatch and adapt regulatory programs to fluctuating stock conditions.

For further information, contact Doug Christel, Policy Analyst, at 978-281-9141.

Lobster Area Eligibility Program

Limited Access Program

NOAA Fisheries Service Northeast Region implemented a limited access program in the Federal lobster trap fishery to reduce fishing effort in Lobster Management Area 3 (an offshore area including Georges Bank), and Areas 4 and 5 (nearshore mid-Atlantic areas that extend from the south shore of Long Island, New York to Cape Hatteras, North Carolina and eastward to the 50 fathom contour). This initiative is consistent with the measures in the Atlantic States Marine Fisheries Commission's Interstate Fishery Management Plan for American Lobster.

The program, open to all Federal lobster permit holders, requires those who intend to fish with traps in these areas to meet specific qualification requirements based on proven participation during the 1990s. Over 300 applications were submitted by Federal lobster permit holders intending to qualify their permits (138 permits qualified for Area 3, 80 qualified for Area 4, and 41 qualified for Area 5). This action reduced the number of participating vessels in each area, on average, by more than 80 percent.

Qualified vessels were granted individual trap allocations based on proven numbers of traps fished. In Area 3, over 1,200 traps will be subject to annual reductions through 2006. Areas 4 and 5 allocations will not be further reduced, however, vessels will not be allowed to exceed 1,440 traps. The cumulative total number of traps allocated to eligible permits was substantially less than the number of traps that could have been fished in each area prior to the implementation of the area eligibility program.

The program was successful in limiting the number of vessels that could fish in these areas and capped the number of allowable traps, consistent with the intent of the fishery management plan. In addition, this program eliminated latent, or potential fishing effort by qualifying only those vessels with proven historical participation. Finally, a clear baseline of trap fishing effort was established for use in evaluating future management proposals.

New Federal Permit Holder Requirements

Vessel Safety Compliance

As of January 1, 2006, all federally permitted fishing vessels and/or those participating in Category 1 or Category II fisheries under the Marine Mammal Protection Act (MMPA) which require mandatory observer coverage will required to successfully complete the Commercial Fishing Vessel Safety Examination and display a current safety decal issued within the last two years, with one exception discussed below.

Vessels that fail to satisfy the new safety requirement will be deemed unsafe for purposes of carrying an observer onboard and will be prohibited from fishing. If the vessel fishes without correcting the safety deficiency, NOAA Fisheries Service or the U.S. Coast Guard may take enforcement action.

Observers are also required to complete a pre-trip safety checklist of the emergency equipment onboard vessels. In addition, they are encouraged to review emergency instructions and drills with the operator prior to the vessel departing port.

Vessel owners/operators may be approached by an observer requesting an inspection of the vessel. At that time, the vessel must meet the safety requirements. If the owner/operator refuses to let the observer onboard, they will be deemed out of compliance with the safety regulations.

A waiver to the requirements may be granted by the agency as long as the U.S. Coast Guard deficiency list, provided by the inspector to a failing vessel, includes only marine sanitation equipment.

Observers collect data for use in the management of commercial fisheries, research on bycatch reduction, and monitoring of protected species and incidental takes. They conduct marine mammal haul watches, record incidental takes of protected species, record discards, conduct biological sampling of catch and collection of specimens, and measure various gear characteristics.

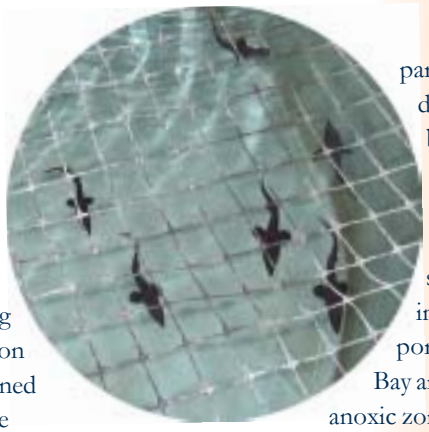
To schedule a dockside safety inspection, contact a Marine Safety Officer Dockside Examiner (USCG):

Portland, ME	207-780-3256
Boston, MA	617-223-3045
Providence, RI	508-999-0072
Long Island, NY, CT	203-468-4437
Baltimore, MD	410-576-2526
Hampton Roads, VA	757-668-5535
Philadelphia, PA	215-271-4852
Wilmington, NC	910-772-2231
Atlantic Beach, NC	252-247-4562

To view the list of fisheries that require an observer or for more information regarding the new regulations, visit the Observer Program's website at: www.nefsc.noaa.gov/femad/fsb. Questions may be referred to David Potter, Observer Program Director, at 508-495-2262.

Species of Concern

Atlantic Sturgeon



In 1997, NOAA Fisheries Service and the U.S. Fish and Wildlife Service were petitioned by the Biological Legal Foundation to list Atlantic sturgeon as threatened or endangered under the Endangered Species Act (ESA). The determination was made that the petitioned action might be warranted and, as a result, the agencies conducted a status review.

In 1998, after the status review had been completed, the agencies determined that listing Atlantic sturgeon was not warranted at the time. However, NOAA Fisheries Service retained Atlantic sturgeon on the candidate species list (which subsequently became the Species of Concern List).

In November 2003, the Atlantic States Marine Fisheries Commission (Commission) hosted a workshop funded by the agencies on the current status of Atlantic sturgeon. The Commission coordinates management of this species in state waters through the Atlantic Sturgeon Fishery Management Plan (FMP). Over 30 scientists and administrators from states, Federal government, academia, and private organizations attended the workshop. As a result of this meeting, it was clear that there are mixed reviews on this species' coastwide status.

Atlantic sturgeon abundance in some rivers, such as the Kennebec, appears to have increased from the late 1970s to the late 1980s. In other rivers, such as the Hudson, abundance of juveniles remained stable at low levels throughout the late 1990s and may have increased slightly since that time. The spawning stock abundance in the Hudson River is estimated at less than 2,000 fish, which is less than 15 percent of the abundance reported for the late 1800s. Abundance of subadults in the Delaware Estuary appears to be declining and sturgeon have remained scarce in the Chesapeake Bay system. Although it appears the relative abundance of juveniles in Arbemarle Sound, North Carolina, is increasing, sturgeon abundance in other systems in the southeast is declining.

Bycatch continues to be a significant problem for this species. Marine bycatch events occur most often during the fall, winter, and spring months, when spawning sturgeon are migrating. During the summer, Atlantic sturgeon migrate into estuaries and river systems, potentially seeking thermal refuges.

Annual mortality in the sink gillnet and drift gillnet fisheries may be as high as 1,500 fish per year. Recent effort reductions in these fisheries may have resulted in a reduction in Atlantic sturgeon bycatch. Several representatives from various states also indicated that they have concerns over the amount of bycatch that may be going unreported in state waters, particularly in the various shad fisheries. The Commission's Atlantic sturgeon FMP, mandates that states report bycatch. However, there is concern that due to limited information, the state records may not accurately reflect the magnitude of bycatch that is occurring.

Habitat conditions in many of the estuaries in the northern extent of this species' range appear to be improving. However, in many southern estuaries habitat is deteriorating due to increased coastal development associated with urbanization. Recent studies have indicated that Atlantic sturgeon are particularly sensitive to low dissolved oxygen levels and become increasingly affected by low dissolved oxygen at higher water temperatures. High summertime temperatures in the tributaries and portions of the Chesapeake Bay are creating hypoxic and anoxic zones, which may be inhibiting the recovery of this species in the Bay.

Due to limited funds, Atlantic sturgeon are a low research and monitoring priority for many state agencies. As a result, it is often difficult to gather information on this species. Some biologists are incorporating Atlantic sturgeon research into existing shortnose sturgeon related projects.

In 1998, the Commission approved an amendment to the existing Atlantic sturgeon FMP. This amendment provided for the complete ban on harvest and possession of Atlantic sturgeon in state waters. It also recommended that the Federal government ban the harvest and possession of this species in Federal waters. As such, there has been no directed fishing for Atlantic sturgeon throughout their range for over five years. However, some populations have continued to decline and several others have remained stable at low numbers.

The Northeast Region has the administrative lead for this species and is working jointly with the Southeast Region and the U.S. Fish and Wildlife Service on a status review for the species. The agency plans to complete the review and publish the listing determination in the spring.

For more information regarding Atlantic sturgeon, contact Kim Damon-Randall, at Kimberly.Damon-Randall@noaa.gov or call 978-281-9300 x 6535 to submit data or for additional information.

Large Whales

Funding Opportunities and Projects

NOAA Fisheries Service Northeast Region established two research programs that provide several sources of funding for projects that seek to develop ways to reduce serious injury and mortality to large whales, especially the critically endangered North Atlantic right whale. The two programs, the Fishing Gear Research Program and the Atlantic Coast States Cooperative Planning for Right Whale Recovery Program, were formed by the agency through a partnership with the National Fish and Wildlife Foundation (NFWF), who administers both programs.

FISHING GEAR RESEARCH PROGRAM

The Fishing Gear Research Program, formerly known as the "mini-grants" program, creates an opportunity for the development of gear modifications through much-needed gear research in support of the Atlantic Large Whale Take Reduction Plan (ALWTRP). The ALWTRP is an evolving plan designed to reduce the risk of serious injury and mortality to large whales due to accidental entanglement in U.S. commercial fishing gear. The fishing gear research program is intended to encourage commercial fishermen and other industry-related professionals along the entire east coast (from Maine to Florida) to identify and develop innovative ideas for reducing death and serious injury to large whales from interactions with gear. Originally, applicants were limited to submitting proposals for projects that would cost $20,000 or less; however, in 2005 this cap was lifted and now applicants can apply for an amount they think is necessary to complete their proposed research.

A variety of gear research projects have been funded through the fishing gear research program. These projects range from reducing the amount of floating groundline in the water to developing a device that cuts the bouy line after a certain load is exerted on the line to implanting micro chips in fishing lines that allow for the identification of entangled lines on large whales.

The Request for Proposals (RFP) for 2006 will open early next spring. Visit the NOAA Fisheries Service Northeast Region's grants website for updates and information on other gear projects funded under the program at: www.nero.noaa.gov/prot_res/prgrants/index.htm.

ATLANTIC COAST STATES COOPERATIVE PLANNING FOR RIGHT WHALE RECOVERY PROGRAM

The Northeast Region also collaborates with NFWF to provide funds to coastal states for projects that have a strong likelihood of reducing the death and serious injury of right whales through the development or implementation of recovery plan programs. To receive funding under this program, a state must have a formal agreement with the agency, called a "Section 6" Agreement. Currently, the Region has five active agreements with the states of Massachusetts, New York, New Jersey, Maryland, and Maine. The Southeast Region has six active agreements with the states of North Carolina, South Carolina, Georgia, Florida, U.S. Virgin Islands, and Puerto Rico.

Five areas that are emphasized and given priority are: ship strike mitigation, enforcement, gear testing to reduce entanglement, disentanglement activities, and education and outreach.

States interested in applying for funding in Round 4 of this program, must do so by April 1, 2005. The RFP for Round 5 will be open around the same time in 2006.

For more information about the research program, contact Amanda Johnson by e-mail at Amanda.Johnson@noaa.gov or by phone at 978-281-9300 x 6513. Check the NOAA Fisheries Service's Grants website for updates and information on other funded projects at www.nero.noaa.gov/prot_res/prgrants/index.htm.

Oysters

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during a 3-year period in the late 1950s and early 1960s. Initially, MSX was found in coastal bays from North Carolina, Virginia, Maryland, Delaware, New Jersey, Connecticut, and New York, but associated mortalities did not occur south of Virginia or north of New Jersey. A range extension of the disease occurred in the 1980s, and MSX has now been documented from Maine to Florida. Since 1995, the range of MSX associated mortalities has expanded to include both Maine and New York.

Currently, there is limited information on the abundance of oysters throughout its range. As such, commercial landings data are often used as a surrogate to indicate potential declines in abundance. Commercial landings throughout the species' range along the East coast have declined to approximately 2 percent of the recorded historic highs. Reported landings for New England reached a high in 1911 at 19,458,939 pounds but in 2003, recorded landings were only 348,927 pounds.

In the Mid-Atlantic, the reported record high was in 1912 at 30,868,420 pounds, but in 2003, landings declined to 1,256,200 pounds. A similar trend is evident in South Atlantic landings with the reported record high in 1904 of 17,738,800 pounds and only 658,896 pounds reported in 2003. The Chesapeake Bay landings have shown the greatest decrease from record highs in 1897 of 87,463,050 pounds to only 236,512 pounds in 2003. In the Gulf of Mexico, harvest has generally increased or remained stable in the last several years. Louisiana is now the top-producing oyster state and has contributed an average of 42 percent to the total U.S. harvest.

In the 1600s, large oyster reefs broke the water's surface at low tide and presented navigational hazards in many Atlantic bays and estuaries. These reefs had been created over 7,000 years by generations of oysters. Today, remnants of these reefs exist as low-lying bars.

Many states have implemented restoration projects to restore oyster reef habitat and oyster stocks. The restoration projects face significant challenges and are showing mixed success. Degraded habitat, poor water quality, and disease often hamper restoration efforts.

Oysters grow well on a hard, rocky bottom or on semi-hard mud firm enough to support their weight. Shifting sand and soft mud are not suitable bottom habitats. Many formerly productive oyster bottoms along the Atlantic coast have been destroyed by a high rate of sedimentation. Rapid settling of suspended material may be highly destructive to an oyster community.

Each state manages the oyster stocks within their waters. The State of Maryland is considering a proposal to introduce the exotic Asian oyster (*Crassostrea ariakensis*) into the Chesapeake Bay. The introduction of an exotic species can have consequences at multiple levels. As such, the effects must be carefully considered. Also, the potential for this introduced species to expand its range beyond the Bay, thereby potentially affecting eastern oyster stocks in adjacent systems (e.g., Delaware Bay or North Carolina waters), must also be considered.

After reviewing the information contained in the petition, as well as other information readily available, the agency determined that a status review for this species was warranted. A status review team has been assembled comprised of 12 state and federal representatives. They are currently compiling the best available biological and commercial information to assess the current status of this species. Once the status review document is complete, it will be independently peer reviewed. The agency will use this document as the basis for a decision on whether this species should be listed as threatened or endangered under the ESA. This determination will be published in the Federal Register within 12 months of receipt of the petition (by January 11, 2006).

It is important to note that the agency is only at the beginning stages of a long process. Until the status review is complete, a decision on listing cannot be made. If the agency determines that listing is warranted, a proposed rule soliciting public comment will be published. All comments will be considered and addressed before any final decision is made.

For more information on the status review process and the response to this petition, please contact Kim Damon-Randall at kimberly.damon-randall@noaa.gov or 978-281-9300 x 6535. The petition and related information have also been posted at http:/www.nero.noaa.gov/prot_res/CandidateSpeciesProgram/eas.htm.

MAILING LIST

If you have questions or would like to be added to our mailing list, contact Marla Trollan, Editor and Regional Outreach Coordinator, at 978-281-9388 or email: marla.trollan@noaa.gov. You may also visit our website at: http://www.nero.noaa.gov/nero/

Cooperative Research Partners Program

Cod Tagging Program

The Northeast Regional Cod Tagging Program (NRCTP) is the largest tagging program on the east coast of the U.S. and Canada. Administered and funded by the Cooperative Research Partners Program (CRPP) since 2002, the program is coordinated by the Gulf of Maine Research Institute (GMRI). This program, a collaboration of five tagging organizations along the New England and Maritime coastline, is intended to:

1) Identify movement patterns of Atlantic cod throughout the Gulf of Maine and neighboring waters and provide information on growth and spawning grounds;

2) Develop a large-scale, collaborative cod tagging program (fishermen and scientists to tag ~100,000 Atlantic cod throughout the study area);

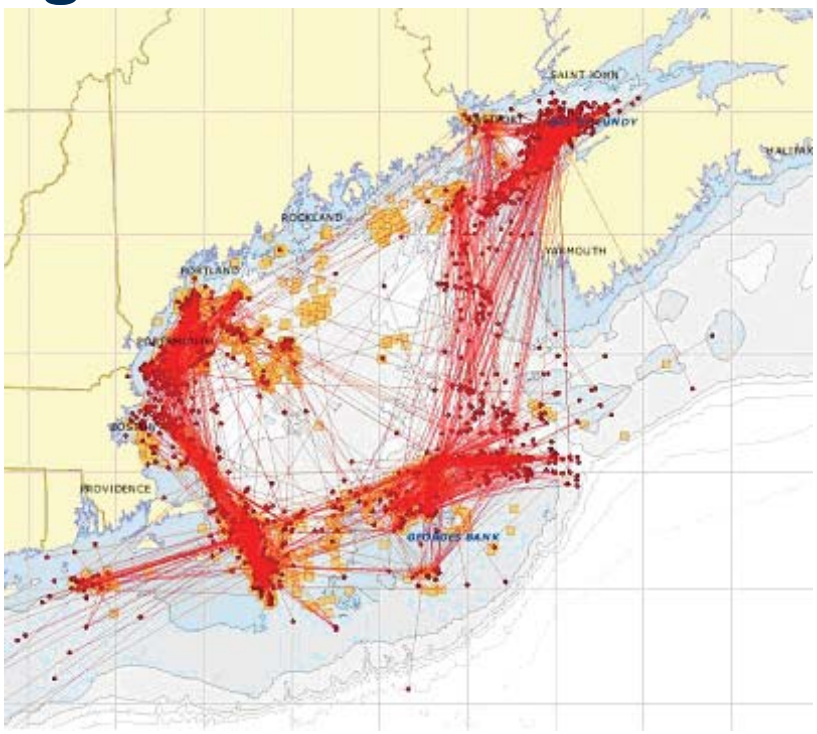
3) Make data available to the public through an online database with a GIS mapping interface; and

4) Identify future research questions.

The NRCTP has successfully focused its tagging efforts, conducted by trained fishermen and scientists, on key tagging areas spread throughout the Gulf of Maine, Southern New England, and Canadian waters. The total number of taggers involved in this program exceeds 130 (84 fishermen and 45 scientists).

By July 2005, the total number of tagged cod released was 116,000, 3,000 of which were tagged with high-reward tags (blue tags, worth $100.

Recapture reports are mailed to tag returnees and also emailed to the original release vessel. Feedback from fishermen who have received these reports has been very positive. A total of 3.5 percent of the tagged cod released have been reported as recaptures.



The NRCTP monthly lottery has resulted in 110 winners since it began in September 2003. In order to qualify for the lottery, the tag return must include tag number, date, location and fish length.

Analysis has determined the key movement patterns of Atlantic cod in the Gulf of Maine and neighboring waters. Data on growth and spawning grounds will become available once long-term recapture information becomes available.

Data has been made available to the public since the program was initiated (via www.gmamapping.org/codmapping). The general public can use the interactive tools to sort data (e.g., by season, location, gear type, fish size, etc.)

Future research priorities include: smart tagging (using data storage tags or acoustic tags); assimilation of historic tagging data from the region; tagging on spawning aggregations; and genetic studies. All are dependant on future funding opportunities.

The NRCTP is a prime example of highly successful collaborative research project. By the end of the project, movement and growth findings will be available to the Northeast Fishery Science Center staff for consideration during the upcoming 2008 Groundfish Benchmark stock assessments. In order to maximize the accuracy of growth and movement trends observed, we urge fishermen and processors are urged to continue to return tagged cod information to GMRI. This important information can be reported via the toll-free number (1-866-447-2111), or by mailing the tag (along with recapture information of date, location, fish length and tag number) to the Northeast Regional Cod Tagging Program at Gulf of Maine Research Institute, P.O. Box 7549, Portland, ME 04112.

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